WHAT IS CLAIMED IS:

1. A method of packaging optical parts for optical communication, comprising:

the first step of mounting an optical filter onto a hollow cylindrical filter holder of which upper and lower faces are open and communicate with each other;

the second step of placing first and second solder preforms on the upper and lower faces of the cylindrical filter holder, respectively;

the third step of bring a single core collimator into contact with the first solder preform and a twin core collimator into contact with the second solder preform;

the fourth step of optically aligning the single and twin core collimators with the optical filter; and

the fifth step of heating and melting the first and second solder preforms and then bonding the single and twin core collimators to the cylindrical filter holder.

2. The method as claimed in claim 1, wherein each of the single and twin core collimators has a pigtail with at least one optical fiber, and a green lens with a metal coating layer formed on an outer circumferential surface thereof and aligned with the pigtail, and the pigtail and the green lens are inserted into and coupled with a glass tube by means of epoxy.

3. The method as claimed in claim 1, wherein in the second step, the cylindrical filter holder is made of glass material, gold plating layers are formed on upper and lower surfaces or inner surfaces of the upper and lower portions of the cylindrical filter holder, and the first and second solder preforms are in contact with the gold plating layers.

4. The method as claimed in claim 2, wherein the first and second solder preforms take the shape of a ring of which an inner portion is hollow, and the third step comprises the step of inserting the green lens of the single core collimator into the first ring-type solder preform to be in contact therewith, and the green lens of the twin core collimator into the second ring-type solder preform to be in contact therewith.

5. The method as claimed in claim 2, wherein a metal coating layer is formed on an outer circumferential surface of the glass tube.

6. The method as claimed in claim 2, wherein the first and second solder preforms take the shape of a ring of which an inner portion is hollow, and the third step comprises the step of inserting the glass tube of the single core collimator into the first ring-type solder preform to be in contact therewith, and the glass tube of the twin core collimator into the second ring-type solder preform to be in contact therewith.

7. The method as claimed in claim 1, wherein the first step comprises the steps of:

preparing the filter holder, said filter holder including a hollow tubular body, which has cylindrical inner and outer circumferential surfaces and the open upper and lower faces communicating with each other, and a seating portion which is formed to be in close contact with the inner circumferential surface of the tubular body and has a hole formed in the center thereof;

applying thermosetting epoxy around the hole formed in the seating portion of the filter holder, and pressing the filter holder against the thermosetting epoxy to be bonded to an upper surface of the seating portion; and

curing the thermosetting epoxy in a hot chamber to couple the optical filter with the filter holder.

8. The method as claimed in claim 1, wherein the first step comprises the steps of:

forming a metal coating layer to cover an outer circumferential surface of a cylindrical glass seating portion with a hole formed in the center thereof;

applying ultraviolet ray-curable epoxy on an upper surface of the metal coating layer, and bonding a first tubular body to the metal coating layer;

inverting the seating portion such that a lower surface of the metal coating layer faces upward, applying ultraviolet ray-curable epoxy on the upward facing surface of the metal coating layer, and bonding a second tubular body to the metal coating layer; and

applying ultraviolet ray-curable epoxy on an upper surface of the glass seating portion, bonding the optical filter to the glass seating portion, and irradiating ultraviolet rays to cure the epoxy.

9. The method as claimed in claim 8, wherein the first and second tubular bodies are made of Steel special Use Stainless.

10. A method of packaging optical parts for optical communication, comprising:

the first step of providing an apparatus for packaging optical parts, said apparatus comprising a pair of hollow cylindrical inner support portions spaced apart from each other, first and second support portions extending outward from the inner support portions, respectively, an outer guide portion connected to the first and second support portions, and a third support portion disposed between the inner support portions and connected to the outer guide portion, said pair of inner support portions and third support portion being provided with resilient jigs facing each other toward an open center of the support portions, and said first and second support portions being provide with high frequency heaters;

the second step of mounting an optical filter to a cylindrical filter holder of which upper and lower face are open and communicate with each other;

the third step of inserting the cylindrical filter holder, to which the optical filter has been mounted, into the open center of the first and second inner support portions and third support portion so that an outer circumferential surface of the filter holder is supported by the resilient jigs of the third support portion;

the fourth step of placing a first ring-type solder preform on an upper surface of the filter holder, supporting the first solder preform by the resilient jigs of the first inner support portion, placing a second ring-type solder preform on a lower surface of the filter holder, and supporting the second solder preform by the resilient jigs of the second inner support portion;

the fifth step of bring a single core collimator into contact with an inner side of the first ring-type solder preform, and a twin core collimator into contact with an inner side of the second ring-type solder preform; and

the sixth step of aligning the single and twin core collimators with the optical filter, melting the first and second solder preforms by the high frequency heaters mounted to the first and second support portions, and cooling the first and second solder preforms to bond the single and twin core collimators with the filter holder.

11. The method as claimed in claim 10, wherein the apparatus further comprises cooling pipes located between the first and third support portions and between the second and third support portions, each of cooling pipes having ends connected to pads and the other ends penetrating through the outer guide portion and being connected to a cooling water supplying means provided at the exterior of the apparatus, the third step further comprises the step of bring the pads connected to the cooling pipes into contact an outer circumferential surface of the filter holder, and the sixth step further comprises the step of supplying cooling water to the cooling pipes to lower the temperature of the filter holder when the high frequency heaters are operated.

12. The method as claimed in claim 10, wherein each of the single and twin core collimators has a pigtail with at least one optical fiber, and a green lens with a metal coating layer formed on an outer circumferential surface thereof and aligned with the pigtail, and the pigtail and the green lens are inserted into and coupled with a glass tube by means of epoxy.

13. The method as claimed in claim 12, wherein the fifth step comprises the step of inserting the green lens of the single core collimator into the first ring-type solder preform to be in contact therewith, and the green lens of the twin core collimator into the second ring-type solder preform to be in contact therewith.

14. The method as claimed in claim 12, wherein a metal coating layer is formed on an outer circumferential surface of the glass tube.

15. The method as claimed in claim 12, wherein the fifth step comprises the step of

inserting the glass tube of the single core collimator into the first ring-type solder preform to be in contact therewith, and the glass tube of the twin core collimator into the second ring-type solder preform to be in contact therewith.

16. The method as claimed in claim 10, wherein the sixth step comprising the steps of: preheating the first and second solder preforms, performing thermal diffusion and melting the solder preforms at a temperature of 150℃ to 220℃ and then naturally cooling the solder preforms.